

Claims

1. Apparatus for estimating the weight of an occupant of a vehicle seat supported by a floor bracket, the apparatus comprising:

a force sensor; and

- 5 a compliant force transfer mechanism interposed between said floor bracket and a mounting bracket of said seat, including first and second co-joined lever arms coupled to said floor bracket and said mounting bracket, where said lever arms terminate in first and second jaws that engage said force sensor, where said jaws exert a pre-load engagement force on said force sensor, and
- 10 where occupant weight applied to said seat produces movement of said lever arms that increases said engagement force, whereby said force sensor produces an output signal indicative of said occupant weight.

2. The apparatus of Claim 1, wherein said first lever arm is rotatably coupled to said mounting bracket and said second lever arm is rigidly secured to said floor bracket.

3. The apparatus of Claim 1, including overload means for limiting upward movement of said seat mounting bracket with respect to said floor bracket to prevent said seat from becoming detached from said floor bracket.

4. The apparatus of Claim 1, wherein said seat includes a set of mounting brackets, and the apparatus includes a force sensor and compliant force transfer mechanism for each such seat mounting bracket, and the force sensors are co-located in pairs to facilitate electrical connections to the force
- 5 sensors.